

MODELS: Wright Cyclone GR-1820G-102 Series and Military R-1820-57, -79, -81, -83, -85, -89

T.C. NUMBER: T.C. 169

Model - Cyclone GR-1820G	-102	-102A	-102B
Type - 9RA	16:11 and 3:2 reduction gears	-	--
Rating:			
Maximum continuous, hp, rpm, in.Hg., at:			
Rated pressure altitude (ft.)	900-2200-35-6000	900-2300-35.4-6700	850-2300-34.5-7500
Sea level pressure altitude	900-2200-36.7-S.L.	900-2300-37.5-S.L.	850-2300-38 1/2 -S.L.
Take-off (one minute), hp, rpm, in.Hg.	1100-2350-43 & 1100-2200-43	1100-2350-43.5	1100-2350-43
Fuel (minimum octane aviation gasoline)			
(CFR Motor Method fuel)	90	--	87
Bore and stroke, in.	6-1/2 x 6-7/8	--	--
Displacement, cu. in.	1823	--	--
Compression ratio	6.7:1	6.3:1	6.0:1
Weight (dry), lbs.	1275	--	--
Propeller shaft, SAE No.	50	--	--
Supercharging (impeller gear ratio)	7:1	--	--
Carburetion	Holley C.G. 1375 C, E, F, H, HA or BAR, Stromberg MA-F7F with 2-3/8 in. venturi, Chandler-Evans 1375 DA-1, or Stromberg PD-12B5 or 7 or PD-12B2 or 3 carburetor with 3-1/4 in. venturi	--	--
Ignition, dual	Scintilla SF9L1, SF9L2, SF9IN, SF9LN1, SF9L3, SF9L4 or Bosch SF9LU3 magnetos	--	--
Ignition timing, degrees BTC	Right 20; left 15	--	--
NCIES	1, 2, 4	1, 2, 3	1, 2
Certification basis	Type Certificate No. 169		
Production basis	None. The manufacturer does not hold a production certificate for the production of engines under this type certificate, and therefore, each engine so produced is subject to a detailed inspection for workmanship and conformity with the approved data by a Civil Aeronautics Administration Agent. In addition, the engine must have a satisfactory run-in including 5 hours at rated power and speed. Upon satisfactory completion of the above, the agent will tag the engine with Tag Form ACA 186.		

NOTE 1. Maximum permissible cylinder head, barrel, and oil inlet temperatures 500 degrees F., 325 degrees F., and 222 degrees F., respectively.

NOTE 2. Eligible with torquemeter No. 413516 at weight increase of 12 lbs.

NOTE 3. Military models R-1820-79, -81, -83, -85 and -89, identical to model GR-1820G-102A, are eligible for use in certificated aircraft; however, the engine nameplate should be revised to include the corresponding civil model designation and Type Certificate number.

NOTE 4. Military model R-1820-57 may be converted to the Cyclone GR-1820G-102 by substituting supercharger impeller P/N 27145 and using either the 1375 DA-1 carburetor, setting number 69445N1, 2 or 4 as applicable or substituting the Holley 1375 F carburetor with setting number 6927N29B.